Amendments to the claims:

1. (original): A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror having a mirror surface essentially parallel to the major surface of the die, the mirror being integrated with the pivoting member; and

an actuator disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position.

2. (currently amended): ~~The optical switch of claim 1 further comprising~~ A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror having a mirror surface essentially parallel to the major surface of the die, the mirror being integrated with the pivoting member;

an actuator disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position; and

a latching spring connected to the base portion and to the pivoting member.

3. (original): The optical switch of claim 2 wherein the latching spring is a radial spring having a first arc of motion and the pivoting member has a second arc of motion, a the first switch position corresponding to a first intersection of the first arc of motion and the second arc of motion and the second switch position corresponding to a second intersection of the first arc of motion and the second arc of motion.

4. (original): The optical switch of claim 3 wherein the hinge is connected to the base portion with a hinge post and the axis is offset from the hinge post.

5. (currently amended): ~~The optical switch of claim 1~~ A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror having a mirror surface essentially parallel to the major surface of the die, the mirror being integrated with the pivoting member; and

an actuator disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position, wherein at least a portion of the mirror in the first switch position extends beyond an edge of the die.

6. (amended): The optical switch of claim ~~1~~ 5 wherein the portion of the mirror extending beyond the edge of the die extends at least about 400 microns.

7. (original): The optical switch of claim 1 wherein the actuator is a magnetic drive.

8. (currently amended): ~~The optical switch of claim 7~~ A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror having a mirror surface essentially parallel to the major surface of the die, the mirror being integrated with the pivoting member; and

a magnetic drive disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position, wherein the magnetic drive comprises

a first pole disposed on the base portion;

a second pole disposed on the base portion; and

a magnetic tab disposed on the pivoting member and movable within a gap formed between the first pole and the second pole.

9. (original): The optical switch of claim 8 wherein the first pole, the second pole, and the magnetic tab comprise an alloy consisting essentially of 45% nickel and 55% iron.

10. (original): The optical switch of claim 8 further comprising

a first sensing pole disposed on the base portion and

a second sensing pole disposed on the base portion.

11. (original): The optical switch of claim 10 further comprising

a first core segment disposed on the base portion;

a first pinched region disposed between and magnetically coupling the first core segment and the first sensing pole;

a second core segment disposed on the base portion; and

a second pinched region disposed between and magnetically coupling the first core segment and the first sensing pole.

12. (original): The optical switch of claim 1 wherein the hinge and the mirror are formed from single-crystal silicon.

13. (original): The optical switch of claim 12 wherein the hinge and the mirror are formed in a layer of single-crystal silicon about 10-80 microns thick.

14. (original): The optical switch of claim 12 wherein the mirror comprises a metallic film formed on the layer of single-crystal silicon.

15. (original): The optical switch of claim 12 wherein the mirror comprises a thin section and a rib section, the rib section being thicker than the thin section.

16. (original): The optical switch of claim 15 wherein the rib section has a first thickness and the thin section has a second thickness, the first thickness being about twice the second thickness.

17. (original): The optical switch of claim 16 wherein the first thickness is about 40 microns and the second thickness is about 20 microns.

18. (currently amended) ~~The optical switch of claim 16 further comprising~~ A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge from single-crystal silicon, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror integrated with the pivoting member and formed from single-crystal silicon having a mirror surface essentially parallel to the major surface of the die and a plurality of ribs disposed on a backside of the mirror, the mirror comprising a rib section having a first thickness and a thin section having a second thickness, the first thickness being about twice the second thickness; and

an actuator disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position .

19. (currently amended): ~~The optical switch of claim 1 wherein the mirror has~~ A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror having a first mirrored surface and a second mirrored surface essentially parallel to the major surface of the die, the mirror being integrated with the pivoting member; and

an actuator disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position.

20. (currently amended): ~~The optical switch of claim 1 wherein the mirror surface defines~~ A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror having a mirror surface essentially parallel to the major surface of the die defining an oval of about 1.4 x 1.0 mm, the mirror being integrated with the pivoting member; and

an actuator disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position.

21. (currently amended) ~~The optical switch of claim 1 wherein the mirror surface defines~~ A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member with

a hinge, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror having a mirror surface essentially parallel to the major surface of the die defining an oval of about 780 x 550 microns, the mirror being integrated with the pivoting member; and

an actuator disposed to rotate the pivoting member to move the mirror from a first switch position to a second switch position.

22. (original): A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member formed in a layer of single-crystal silicon with

a hinge formed of the layer of single-crystal silicon, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror formed from the layer of single-crystal silicon and a metallic coating having a mirror surface essentially parallel to the major surface of the die, the mirror being integrated with the pivoting member; and

an actuator configured to rotate the pivoting member and mirror with respect to the base portion in response to a control signal.

23. (original) A micro-electro-mechanical system ("MEMS") optical switch comprising:

a base portion of a die attached to

a pivoting member formed in a layer of single-crystal silicon with

a hinge formed of the layer of single-crystal silicon, the pivoting member rotating in relation to the base portion about an axis essentially perpendicular to a major surface of the die;

a mirror formed from the layer of single-crystal silicon and a reflective coating having a mirror surface essentially parallel to the major surface of the die, the mirror being integrated with the pivoting member;

a latching spring disposed between the base portion and the pivoting member to hold the pivoting member in one of a first position and a second position; and

a magnetic drive including a first pole and a second pole disposed on the base portion, the first pole and the second pole forming a gap therebetween in at least the single-crystal silicon layer and further including a magnetic tab disposed on an arm movable within the gap.

24. – 51. (canceled)